



4/00

PITTSBURGH STEEL COMPANY

PITTSBURGH, PA.



**THIS TRADE MARK
SHOULD GUIDE YOU AGAINST
GOODS MADE FROM INFERIOR MATERIAL**

"Pittsburgh Perfect" brands are to be found in every section of the world. Our distribution is thorough and our goods may easily be obtained anywhere. They may be secured of your dealer. Insist upon his furnishing our brands to you. If he is not carrying them and attempts to substitute other makes, write us direct:

PITTSBURGH STEEL COMPANY,

PITTSBURGH, PA., and we will arrange to supply you.

Do not accept goods other than ours on the assurance they are of equal quality. Look for the "Pittsburgh Perfect" Trade Mark, and decline to receive packages not so branded. Under the "Pittsburgh Perfect" brand, we manufacture the following products:

Bright Wire
Annealed Wire
Galvanized Wire
Barbed Wire on
Regular, Pony or
80-rod spools
Wire Fence Staples

Galvanized Twisted Cable Wire
Hard Spring Coil Wire
Poultry Netting Staples
Standard Steel Wire Nails
Galvanized Wire Nails
Large Head Roofing Nails
Steel Hoops, Steel Bands, Cotton Ties

"PITTSBURGH PERFECT" Electrically Welded Wire Fencing

(We make all the above material from Open Hearth Steel.)

When ordering, dealers and consumers should be sure to specify:

"Pittsburgh Perfect" Brands only.

		HOW TO DETERMINE THE SIZE OF NAILS BY THE LENGTH:																	
LENGTH		1"	1 ¼	1 ½	1 ¾	2"	2 ¼	2 ½	2 ¾	3"	3 ¼	3 ½	4"	4 ½	5"	5 ½	6"		
MEASURE FROM HERE		2 ^d	3 ^d	4 ^d	5 ^d	6 ^d	7 ^d	8 ^d	9 ^d	10 ^d	12 ^d	16 ^d	20 ^d	30 ^d	40 ^d	50 ^d	60 ^d		

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DESIGNED AND PRINTED BY WOODWARD & TIERNAN PRINTING COMPANY, ST. LOUIS

FROM ORE TO FINISHED PRODUCT

"Pittsburgh Perfect" products, including "Pittsburgh Perfect" Fence, welded by electricity, will hereafter be made by the Pittsburgh Steel Company from the ore to the finished material. Blast furnaces will soon be erected which will provide the pig iron for the great open hearth plant recently put in operation. The erection of the blast furnaces is one of the final steps in fortifying the company's long-standing position as the largest independent manufacturer of nails, wire and fencing in the world.

Four important improvements have been made in "Pittsburgh Perfect" Fencing in the past few years:

- No. 1—Larger Wires**
- No. 2—Open Hearth Wire**
- No. 3—Lead Annealing**
- No. 4—Galvanizing**

As each year has passed "Pittsburgh Perfect" Fencing has been in every respect the equal of any fence made at the same period.

A plow made ten years ago is the inferior of the plow offered by the same plow company of this year. A cream separator made ten years ago would not be put on the market as this year's type, nor would the dairyman accept it as such. A drill of the type of ten years ago would easily be recognized as out of date as compared with an implement made recently. A harvester, for instance, of ten years ago would not be accepted to-day. Better machines are now sold.

The history of any great enterprise proves that progress is constantly being made. The article of ten years ago is a relic compared with the improved article of to-day. This is true of all large and successful businesses.

It must be borne in mind that the greatest improvement in wire fence construction ever known was made when electric welding was introduced. It placed wraps, clamps and ties in the waste wire class. This radical change over old methods was made by the Pittsburgh Steel Company and was incorporated into its now celebrated "Pittsburgh Perfect" Fencing, manufactured exclusively by them.

Considering the limited time this fencing has been on the market, its average yearly sales have been larger than those of any fence ever made.

(1) Since larger wires are now going into "Pittsburgh Perfect" Fencing, its durability largely exceeds the life and service of the fence of a few years ago. Remember, that a fence is no better than the smallest wire in it, for when the life of the smallest wire is ended, the service the remainder of the fence will give is at once greatly diminished. **Every stay wire in our fence is now the same size as the intermediate line wires.**

As we have done away with all wraps, ties and clamps, setting these aside as useless wire, consumers of fence should understand that no fence with wires as large—top, bottom, stays, strands—and with no larger spacings—can be bought for the same price as "Pittsburgh Perfect."

The difference in price is particularly true of our Extra Heavy and Jumbo fences of all No. 10 and of all No. 9 intermediate line and stay wires.

As each year has passed, increasing demand has enabled us to add improvements of great value to consumers of fence, and as sales continue to grow, opportunities will be presented for still greater improvements.

And, in buying fence, remember that the larger the wire the stronger the fence will be, and the longer it will last.

We have a joint that can not be slipped, and on this account our Extra Heavy fence with stays twelve inches apart, and with all intermediate and stay wires No. 10 gauge, or our Jumbo fence with stays twelve inches apart, and with all wires No. 9 gauge, will do better service and be on the posts many years longer than six inch stay fences of any make in lighter gauge wires.

The advisability of increased distance between stay wires is determined altogether by the size of the wires used. A No. 11 wire is stronger and will last longer than a No. 12, a No. 10 than a No. 11, and a No. 9 than a No. 10. The heavier the wire, the further apart the stays can be placed, provided the wires are electrically welded.

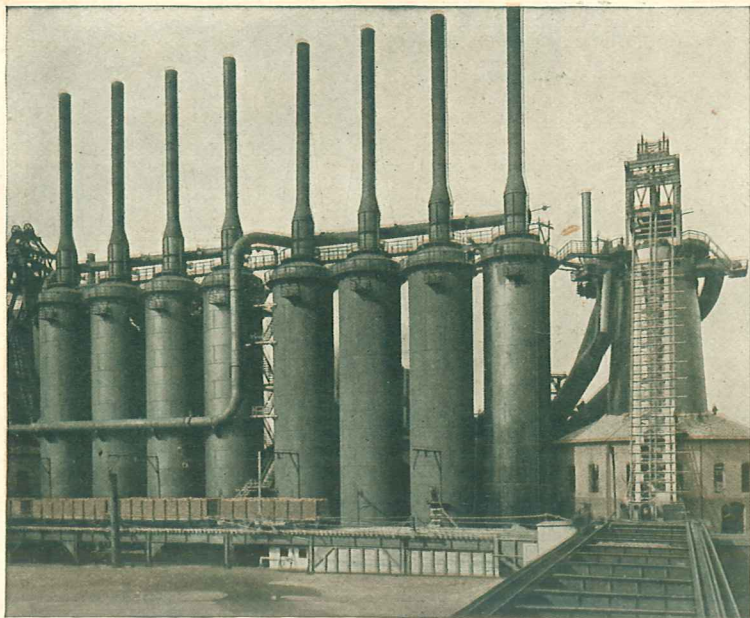
If your fence wires were as large as the end gate rod on your wagon, you would not need an end gate rod for the stay every six inches, would you?

Large wires last longer than small ones on account of size, even if not galvanized; but perhaps you do not know there is more galvanizing in actual thickness on a large wire than on a small one. The smaller the wire, therefore, the less the thickness of galvanizing there is on it.

(2) **Every user of fence should know the vast difference between open hearth wire and Bessemer wire.** Nothing but basic open hearth wire, produced in our immense works recently built, is now used in "Pittsburgh Perfect" Fencing. Practically all other fences are made from Bessemer

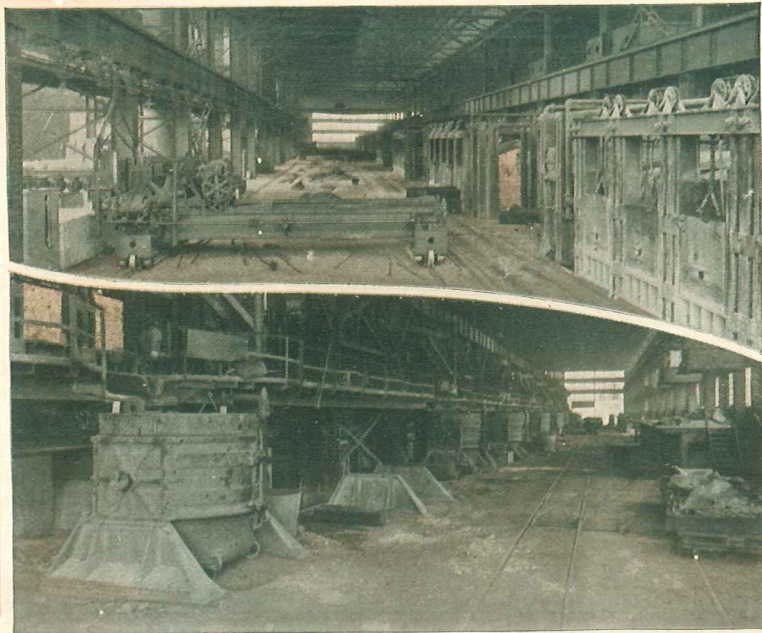
Continued on page 30

BLAST
FURNACES
CONVERT
ORE INTO
PIG IRON



THE PITTSBURGH STEEL COMPANY BEGINS
WITH THE RAW MATERIAL, CONTROLLING
ITS PRODUCTS THROUGH EVERY STAGE

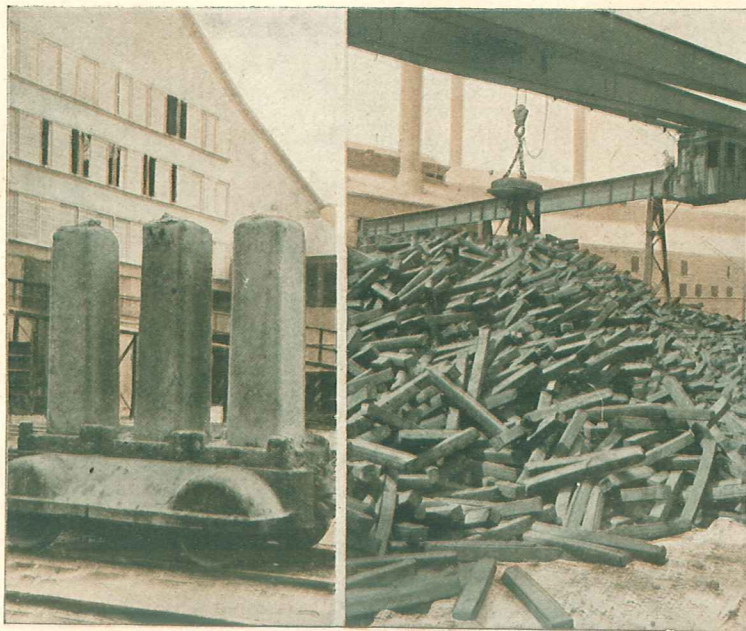




FRONT AND
REAR OPEN-
HEARTH
FURNACES

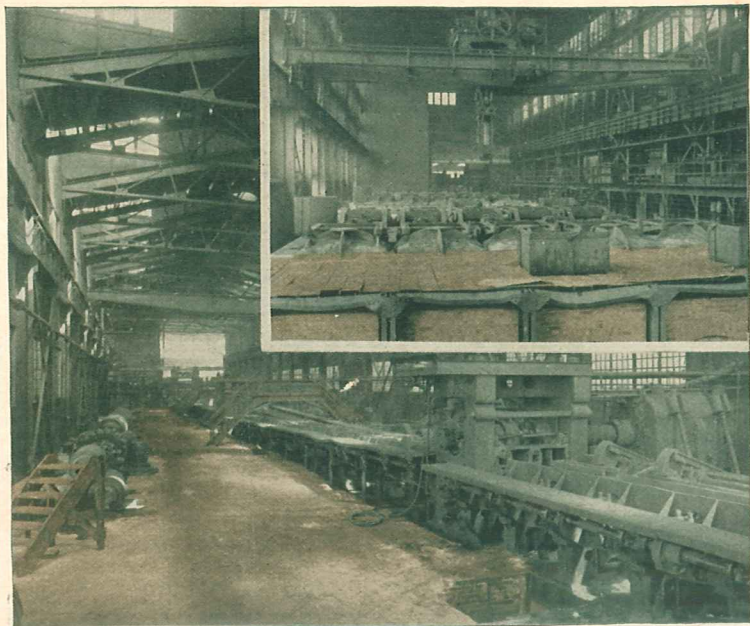
THIS DEPARTMENT, COSTING SEVERAL
MILLION DOLLARS, PRODUCES THE
OPEN-HEARTH BASIC STEEL FROM WHICH
THE TOUGHEST WIRE POSSIBLE IS MADE

7,500-POUND
INGOTS, OR
STEEL IN
CRUDE
FORM



INGOTS PASS THROUGH SEVERAL STAGES OF
ROLLING TO BECOME BILLETS, WHICH ARE
HANDLED RAPIDLY BY ELECTRIC MAGNETS



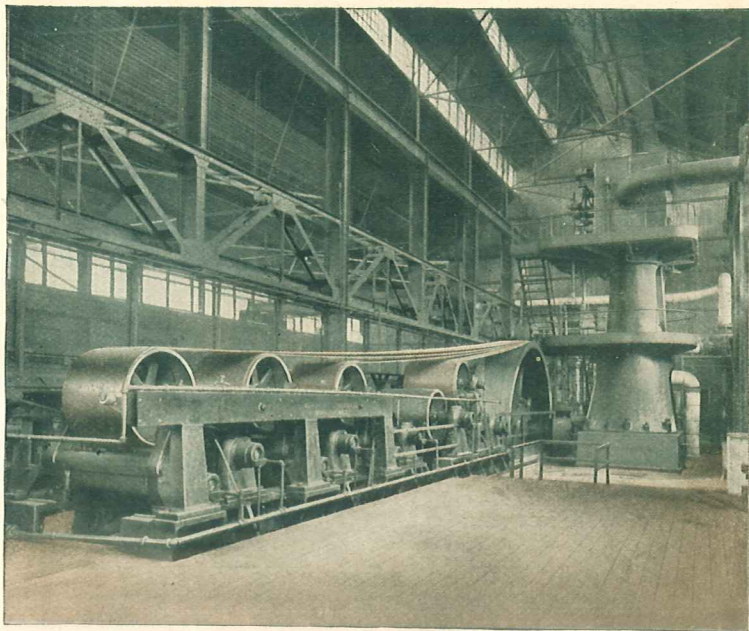


SOAKING
PITS AND
BILLET MILL

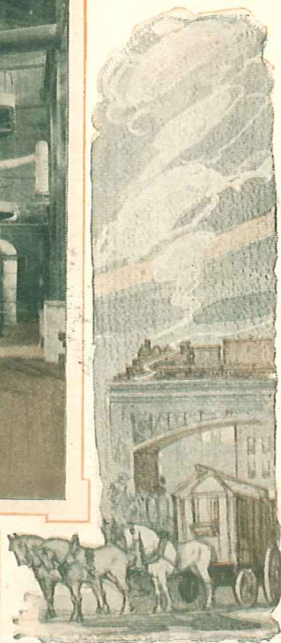


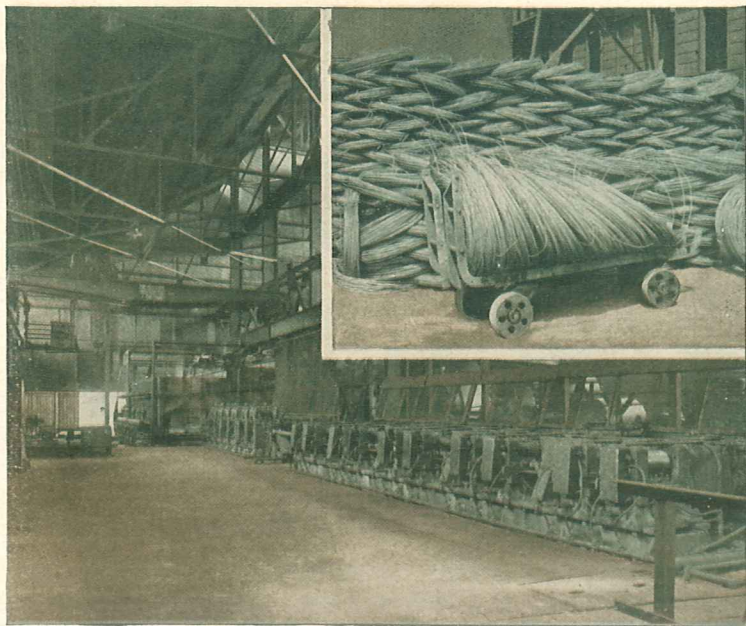
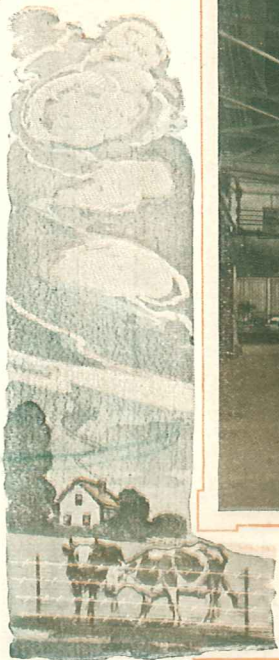
IN THE SOAKING PITS INGOTS ARE KEPT HOT
UNTIL ROLLED, TO BECOME IN TURN BLOOMS,
BILLETS, RODS, WIRE, NAILS AND FENCE

2,500 HORSE-
POWER ROD
MILL ENGINE



FOUR BIG POWER SHAFTS ARE BEING OPER-
ATED BY STEEL ROPE DRIVES CONNECTED
WITH A MAMMOTH MASTER DRIVE WHEEL

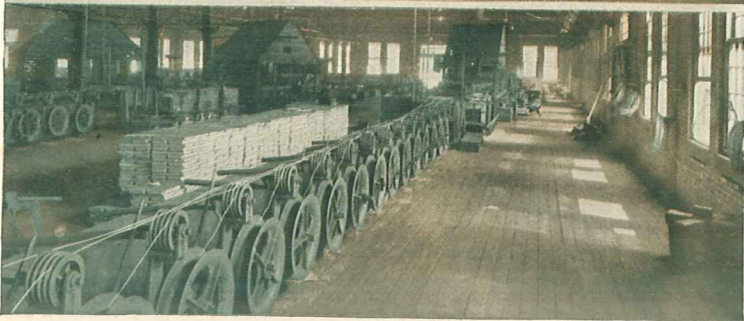
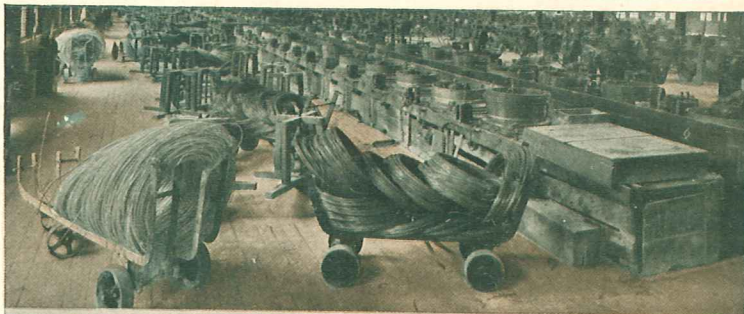




CONTINUOUS
ROD MILL
WIRE RODS

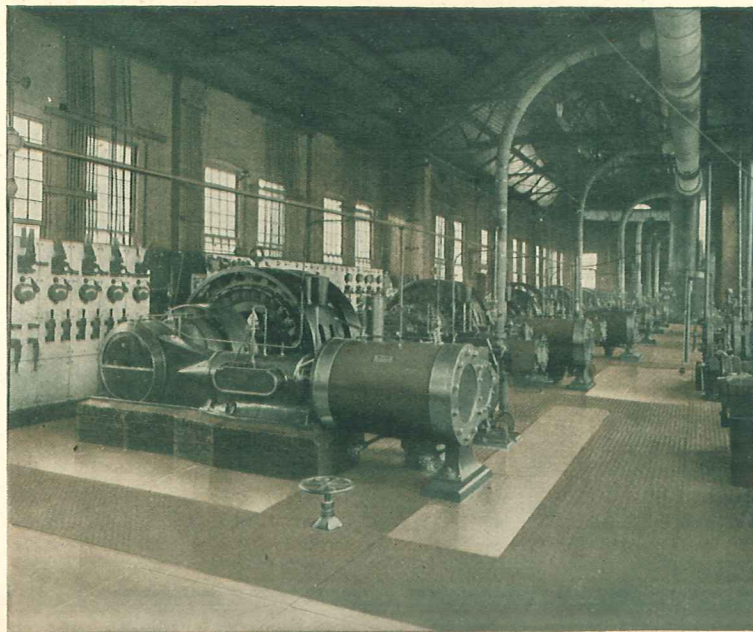
A ROD IS A LITTLE LARGER THAN A LEAD
PENCIL. FORMERLY MADE BY HAND, RODS
ARE NOW MADE BY AUTOMATIC MACHINERY

WIRE DRAW-
ING PLANT
GALVANIZ-
ING PLANT



"PITTSBURGH PERFECT" FENCES ARE NOW
GALVANIZED BY AN IMPROVED PROCESS.
THE WIRE IS FIRST LEAD ANNEALED

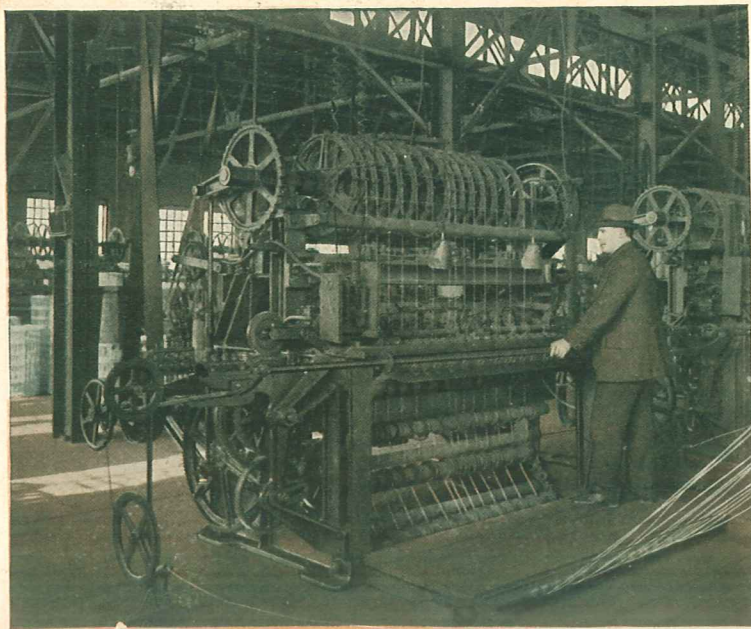




GENERATING
THE
WELDING
CURRENT

BATTERIES OF DYNAMOS IN A FULLY-EQUIPPED POWER ROOM MAKE THE ELECTRICITY FOR THE "WELD THAT HELD"

ONE OF THE
MACHINES
FOR WELD-
ING FENCE

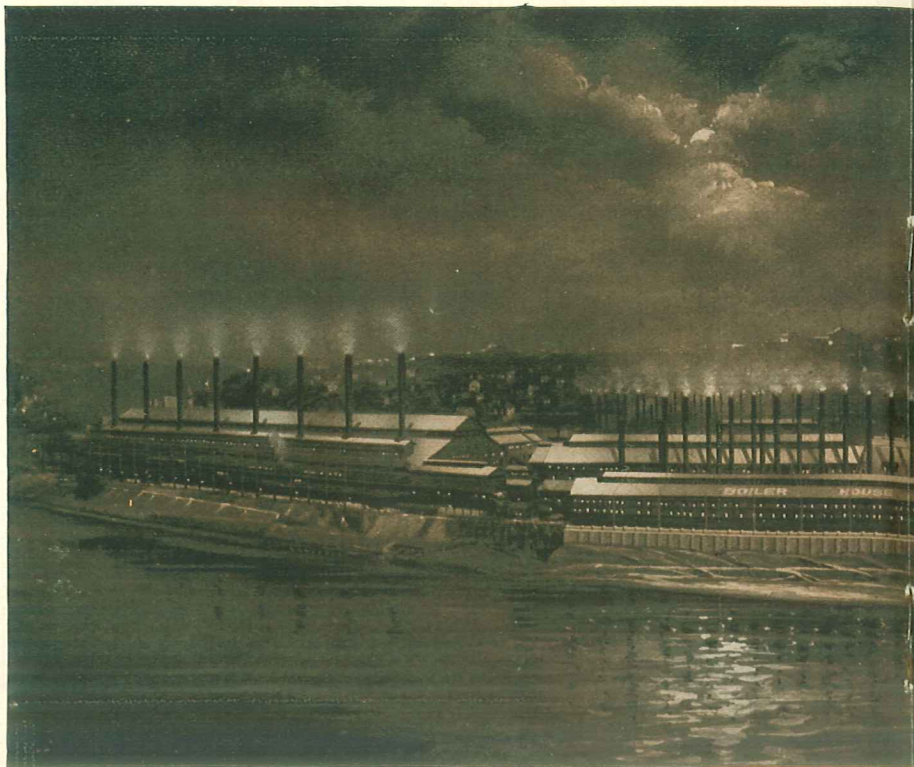


BY THIS METHOD, WRAPS, TIES AND CLAMPS
ARE ABANDONED, PRODUCING A FENCE
WITH AN ABSOLUTE NON-SLIPPING JOINT



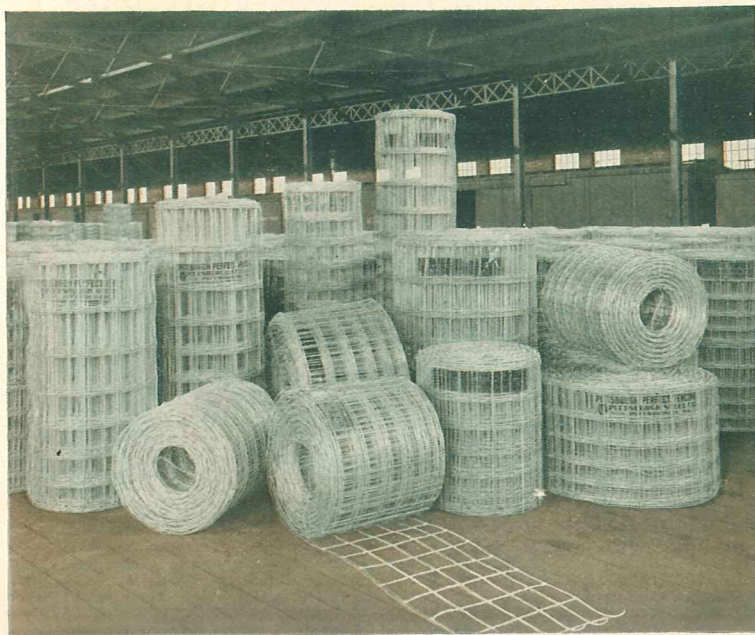


NIGHT SCENE ON THE
MONONGAHELA RIVER
NEAR PITTSBURGH, PA.
SHOWING A PORTION OF
THE PLANTS OF THE
PITTSBURGH STEEL CO.





LARGEST INDEPENDENT
MANUFACTURERS OF
FENCING, NAILS AND
WIRE IN THE WORLD



HARD, COLD
FACTS
ABOUT BIG
DEMAND

OUR MAMMOTH WAREHOUSES ARE SO CON-
STRUCTED AS TO PERMIT OF BOX CARS
ENTERING DIRECT INTO THE BUILDING,
THEREBY ENABLING US TO LOAD FINISHED
PRODUCTS WITHOUT EXPOSURE TO WEATHER

BARB WIRE
MACHINES
STAPLES



EVERY TYPE OF BARB WIRE ORDINARILY
SOLD IS INCLUDED IN OUR LIST, EITHER
ON REGULAR, SMALL OR 80-ROD REELS





20 MINUTES'
OUTPUT OF
BARB WIRE

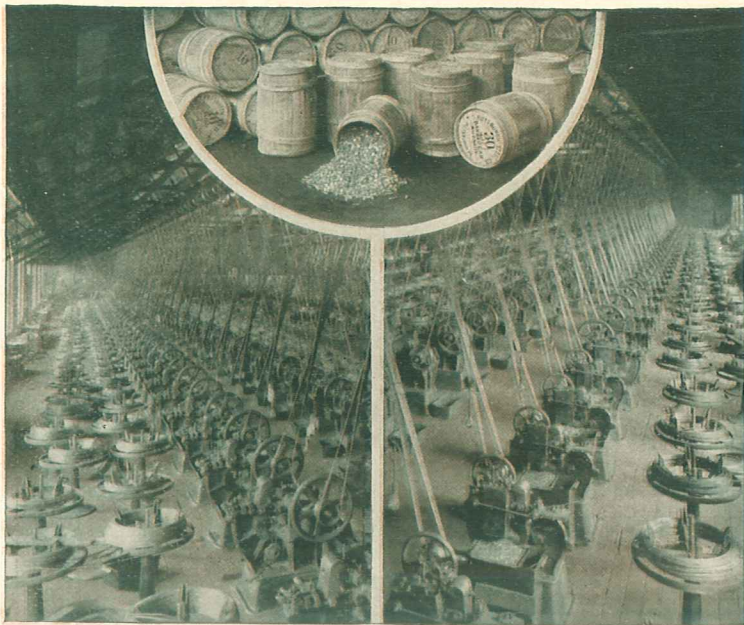
"PITTSBURGH PERFECT" BRANDS OF BARB
WIRE ARE MADE FROM OPEN-HEARTH
WIRE, CONCEDED SUPERIOR TO BESSEMER

BARB WIRE
AND
NAIL 'WARE-
HOUSES



THE TWO VIEWS SHOW BARB WIRE AND
NAILS SUBSTANTIALLY AS THEY ARE
KEPT IN STORAGE PRIOR TO SHIPMENT

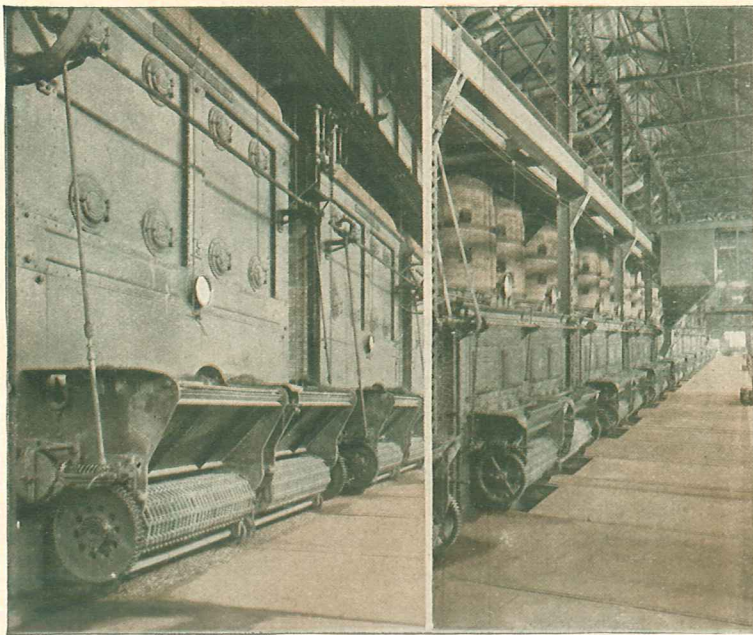




288,000,000
POUNDS OF
NAILS A
YEAR

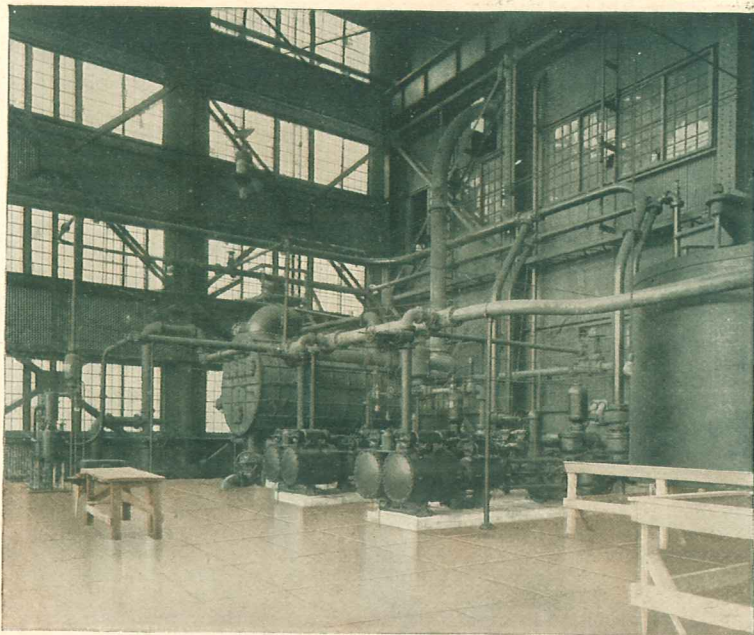
OPEN-HEARTH STEEL FROM OUR NEW
FURNACES GOES INTO EVERY ONE OF THE
EIGHT THOUSAND KEGS PRODUCED DAILY

TWO MAM-
MOTH SELF-
FEEDING
BOILER
PLANTS



THE COAL IS FED INTO HOPPERS FROM
LARGE CARRIERS AND CONTINUOUS CHAIN
GRATES FORCE IT BACK UNDER THE BOILERS

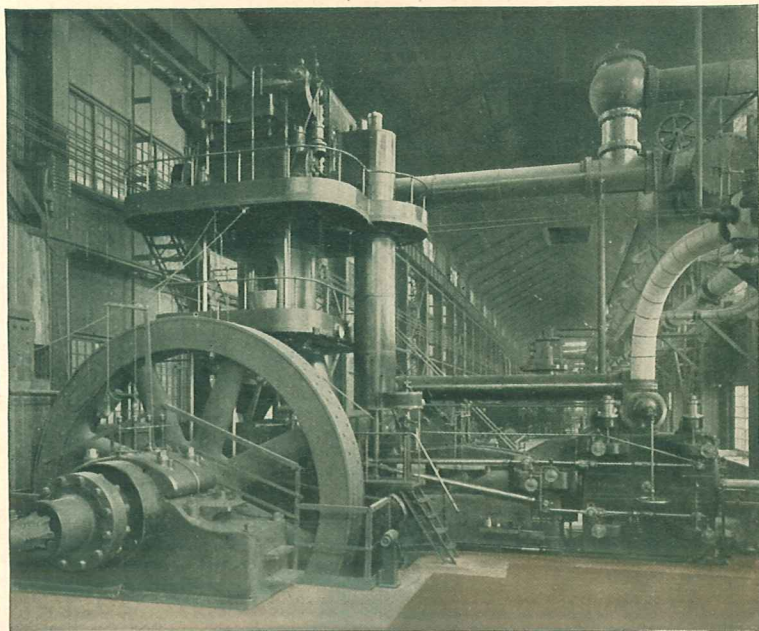




WATER
WORKS
PLANT FOR
THE MILLS

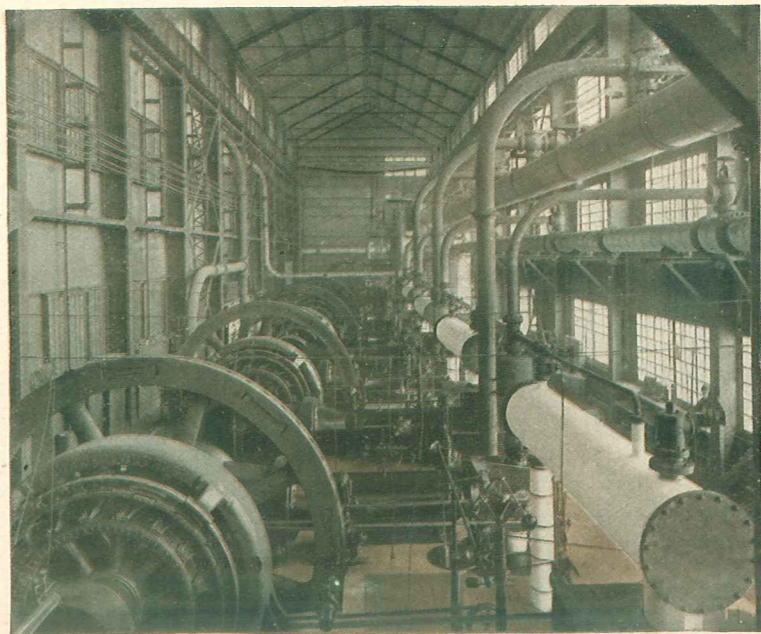
A COMPLETE PUMPING STATION, LARGE
ENOUGH TO SUPPLY A SMALL CITY, IS
AN INTEGRAL PART OF THE PLANT

SEVENTY-
FIVE
HUNDRED
HORSE-
POWER



THIS MONSTER ENGINE IS ONE OF
THE MOST POWERFUL ROLLING
MILL ENGINES IN THE WORLD

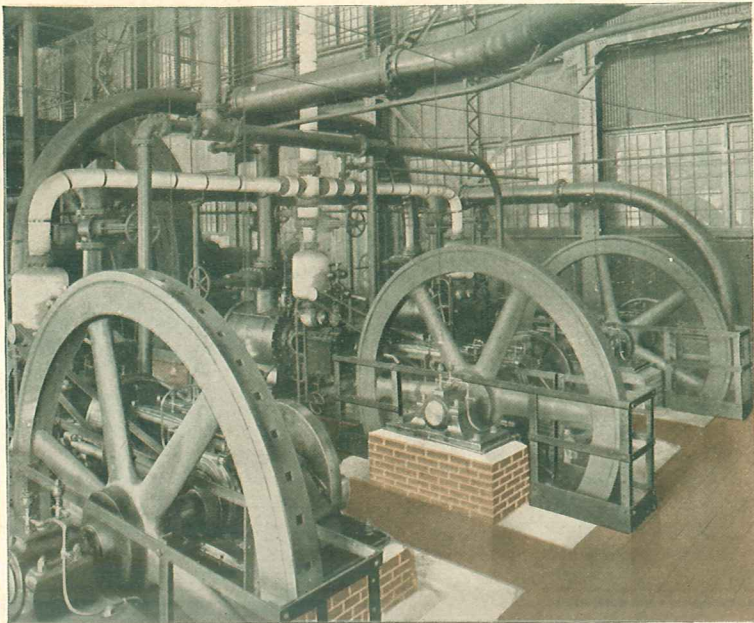




PART OF
THE MAIN
POWER
PLANT

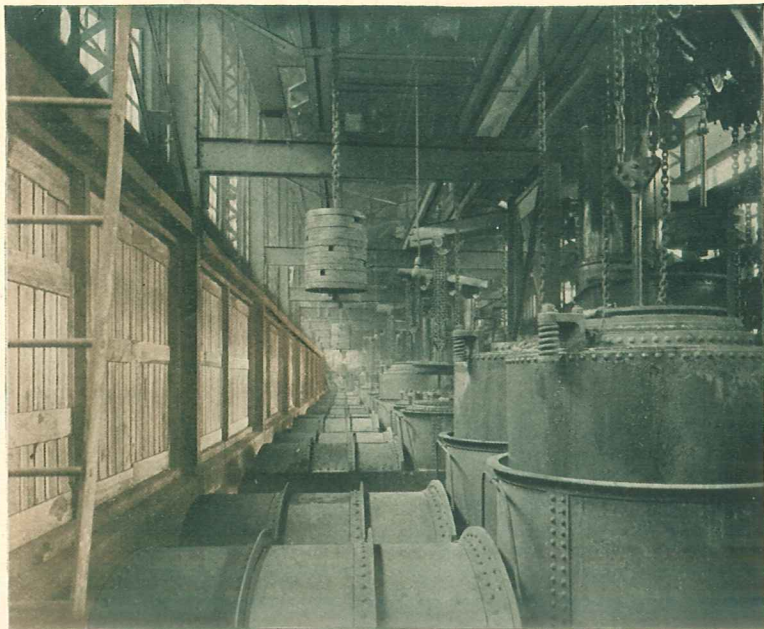
NOTE THE LATE TYPE OF MACHINERY,
ENGINES CONNECTED BY DIRECT DRIVE
WITH DYNAMOS, DISPENSING WITH BELTS

COMPRES-
SORS IN
MAIN PLANT



POWERFUL MACHINERY SUPPLIES COM-
PRESSED AIR TO PNEUMATIC TOOLS, LABOR-
SAVING INVENTIONS OF RECENT YEARS

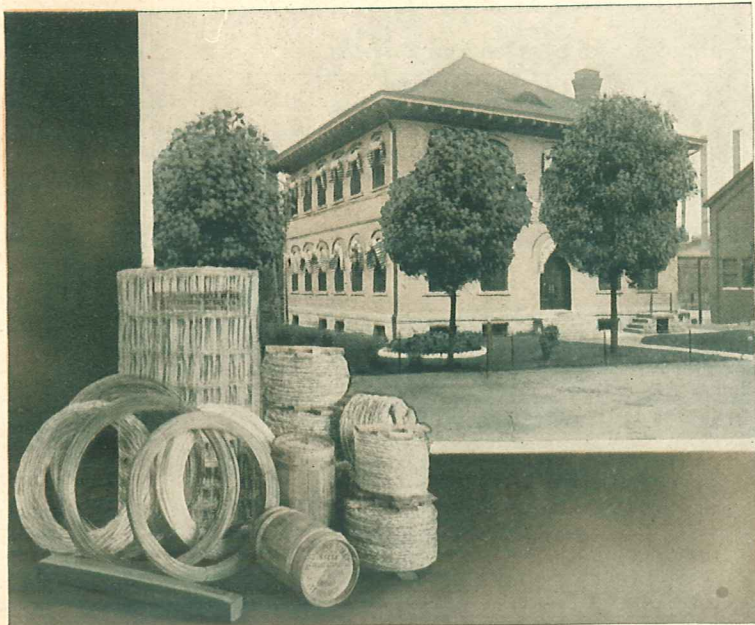




IMMENSE
RESERVE
GAS PLANT

FAILURE OF THE NATURAL GAS SUPPLY WOULD MEAN A GREAT LOSS. THIS DEPARTMENT COULD OPERATE IMMEDIATELY WITH PRODUCER GAS

SOME
OF OUR
PRODUCTS



MILL OFFICE—MONESSEN, PENNA. WORKS



steel. A rivet made from open hearth material may be hammered flat without breaking, as the material is of superior quality.

By actual test open hearth wire is the toughest that ever has been put into fence. It is a radical improvement.

No farmer can afford to purchase fence made from grades of wire inferior to open hearth.

Open hearth wire is as close to the old-time iron wire as it can be made and worked into fence. Every user of wire whose experience has extended over several years is familiar with the long wearing quality of the old-time iron wire.

(3) Annealing wire has the same effect upon it as kneading dough; it produces a material of even texture. The more thoroughly the wire is annealed the greater its toughness. The wire for early "Pittsburgh Perfect" Fencing was annealed by the old "furnace" process, the coils of wire being placed in furnaces and baked, much as a loaf of bread.

Leading wire mills of the world were then using this method, had been doing so for years, and are still using it; but the wires for all "Pittsburgh Perfect" Fences are now submitted to the lead process of annealing. By the lead process the wires are passed continuously through pans of hot lead, and every inch is submitted to exactly the same amount of heat. The wire that is produced, therefore, is of an even grade throughout. As the wire is originally worked in our new mills from unusually large ingots, it is necessarily rolled a considerable number of times, which also adds greatly to its toughness.

(4) Among the more recent improvements in "Pittsburgh Perfect" Fencing is the method of galvanizing. This improvement is bringing forth a fence that will withstand the atmosphere, gases and other destroying influences to a greater degree. This feature alone is of great value, since the durability of the fence is much increased.

The Judgment of the Pittsburgh Steel Company has been confirmed by that eminent scientist, Dr. Allerton S. Cushman, of the United States Department of Agriculture, who is in charge of physical and chemical investigations, and who has been investigating among other things for the past six or eight years the wire fencing made in the United States. He appeared before the Agricultural Appropriation Bill Committee of the Department, and in answer to the question of the chairman as to what Dr. Cushman found to be wrong with fence wire and what remedy he devised, he replied that the first thing wrong with fence was that it was being made out of carelessly-made wire, and also that the amount and character of the zinc covering that was put on top left much to be desired.

The Pittsburgh Steel Company is now making fence wire by an improved process of galvanizing.

The Pittsburgh Steel Company has increased the size of wire put in its fences and now stays and strands are the same gauge wire.

Dr. Cushman stated to the Committee:

"In nearly every type with which I am familiar, the stay wires are entirely too light to last long, and my advice is never to have a stay wire lighter than the line wire on any fence. Do not practice the false economy of cutting down the weight of the wires.

"I do not believe that a wire fence should be put on a farm that has a wire in it lighter than No. 9 gauge, and yet the great majority of fences are made of wire that runs as low as No. 12 and No. 14 gauge, especially in the up and down wires, which are called the stay wires. In many cases these rust within a year and a half. This is because it is impossible to put as much zinc on a light gauge wire as on a heavier gauge wire. That is a technical fact."

Bearing on the character of the material entering into fence, Dr. Cushman suggested:

"The modifications are, first and foremost, to use a more even and more homogeneous metal in the wire to control the amount of impurities that steel contains, so that one batch of metal that comes out of a furnace will be as nearly as possible like the next one."

He also stated that metals of different chemical constitution, such as Bessemer and open hearth, should not be assembled in a structure, as the assembling and connecting of metals of different constitution is one of the controlling influences which hasten or stimulate the corrosion (rust) of the material.

Again quoting from his statement, he says: "Some of the manufacturers now use only open hearth stock, which I believe to be superior."

Absolutely nothing but basic open hearth is now used in "Pittsburgh Perfect" Fencing.

"Pittsburgh Perfect" Fencing is an exclusive product. There is no other fence that can possibly be like it, since we own the patent rights. Welding fence by electricity can not be imitated.

In manufacturing it, the raw ore, coke, lime-rock, etc., are smelted into pig iron, which in turn becomes open hearth ingots. These ingots are rolled into blooms, then into billets, and the billets drawn into rods. The rods are reduced to wire, which is galvanized and made into fence.

This fence, with our other "Pittsburgh Perfect" brand products, is loaded in cars, one hundred of them being filled under one roof without re-switching. Under our perfect warehouse system, clean, fresh stock is thus secured.

Your dealer knows these facts. Do not accept any other fence, nails, wire nor barb wire. Call for and insist upon being supplied with "Pittsburgh Perfect" brands.



GENERAL
OFFICES
PITTSBURGH
STEEL
COMPANY,
PITTSBURGH,
PA.

